

$p < 0.0001$. Subjects with lower scores had worse survival: HR 1.6 (95% CI 1.2, 2.0), $p < 0.0002$. **CONCLUSION:** QoL measures underestimate utilities. The weighted global QoL and utility scores had discriminative and predictive validity in advanced cancer. Our work enables QoL data obtained with a simple questionnaire to be converted into optimally weighted measures that can be used in clinical trials to: describe the net effect of cancer treatments on QoL; evaluate trade-offs between quality and quantity of life using quality-adjusted survival analysis; and do cost-effectiveness analyses based on cancer patients' preferences.

CN3

EFFECTIVENESS OF EPOETIN ALPHA VERSUS DARBEPOETIN IN CHEMOTHERAPY-INDUCED ANAEMIA IN THE GERMAN SETTING

Ezzat N¹, Brüggengjürgen B², Willich SN²

¹Alpha Care GmbH, Celle, Germany, ²Charite University Medical Center, Berlin, Germany

OBJECTIVES: To analyze the effectiveness of Darbepoetin alpha and Epoetin alpha administered in patients with chemotherapy-induced anaemia (CIA) in the German setting considering the dosing schedules recommended in Germany. **METHODS:** Published prospective, randomized and controlled studies with either Epoetin alpha administered once weekly (EPO-QW), Darbepoetin administered QW (DARB-QW) and once every three weeks (DARB-Q3W) were extracted. Mean haemoglobin area-under-the-change-curve (HB-AUC) was selected as the effectiveness parameter, calculated by inclusion of all available haemoglobin values in the chosen time frame of 12 weeks. Mean administered doses and transfusion requirements were analysed. Number of study patients were accounted for. **RESULTS:** Eleven study arms were identified satisfying the inclusion criteria. Mean baseline HB for EPO-QW, DARB-QW and DARB-Q3W varied between 9.5–10.4 g/dl, 9.4–9.9 g/dl, and 9.8–9.9 g/dl respectively. The increase in HB levels from baseline to week 12 varied between about 1.0 g/dl–2.9 g/dl, 1.1 g/dl–1.6 g/dl, and about 1.0 g/dl. Calculated mean HB-AUC value for EPO-QW, DARB-QW and DARB-Q3W were 11.75, 8.84 and 8.08, respectively. Mean administered doses reported were 39,949 IU / week and 42,714 IU / week for EPO-QW, 2.2 µg/kg weekly, 1.59 µg/kg weekly, 2.05 µg/kg weekly for DARB-QW and 1.87 µg/kg weekly mean dose per kg for DARB-Q3W. Information on transfusion rates differed, for two study-arms transfusion requirements were not reported at all. **CONCLUSION:** Comparative studies are not available for the recommended and labeled regimens in Germany. Quality and amount of reported data needed for comparing clinical effectiveness from different study arms differ very much. Administered doses, transfusion rates and detailed HB increase were not available for all studies. Considering HB-AUC as the key comparison criterium Epoetin alpha administered once weekly is more effective.

CN4

COST-EFFECTIVENESS OF PEGYLATED LIPISOMAL DOXORUBICIN VS. CONVENTIONAL DOXORUBICIN IN AVOIDANCE OF CARDIOTOXICITY FOR METASTATIC BREAST CANCER IN THE FIRST TREATMENT YEAR

Singer ME¹, Sandor DW², Reardon G³

¹Case Western Reserve University School of Medicine, Cleveland, OH, USA, ²Touro University College of Medicine, Hackensack, NJ, USA, ³Informagenics, LLC, Worthington, OH, USA

OBJECTIVES: Despite demonstrated efficacy of anthracyclines in metastatic breast cancer (MBC), strong evidence links these

agents to development of reduced left ventricular ejection fraction (LVEF) and congestive heart failure (CHF). We examined the cost-effectiveness of using pegylated liposomal doxorubicin (PLD) to reduce cardiotoxicity. **METHODS:** A Markov model was developed to simulate the use of PLD vs. conventional doxorubicin (DOX) in the first 48 weeks after initiation of therapy. Our reference case was a 58 year old female newly diagnosed with MBC. Data from a large-scale clinical trial was used to model the incidence of CHF. The perspective was the provincial authority in Ontario, Canada. Costs included direct costs of chemotherapy, oncology and hospital services for managing MBC, as well as medical management for treating cardiotoxicity. Since trial data showed that patients with prior anthracycline exposure (15%) had a relative risk of 2.8 for LVEF, and 4.1 for progression to CHF, we adjusted for prior anthracycline exposure which is greater in the adjuvant setting (80% in Ontario). A previously developed cardiotoxicity risk model was used to identify high-risk patients. Analyses were performed for: 1) all patients, 2) subset of high-risk patients. **RESULTS:** For DOX, 40% experienced cardiotoxicity, with 18% developing CHF. These rates were 54% and 33% in high-risk patients. For PLD, no patients developed CHF, but 9% overall and 14% of high-risk patients developed LVEF. Using PLD instead of DOX was associated with an incremental cost of CAD\$75,513 per patient spared CHF, \$49,952 in high-risk patients. **CONCLUSION:** In the first treatment year, the greatest cost-effectiveness gain was avoidance of CHF in high-risk patients. In Ontario, where the vast majority of patients are high-risk, a large percentage of patients would be expected to avoid CHF by using pegylated liposomal doxorubicin instead of conventional doxorubicin.

PODIUM SESSION II: ECONOMIC STUDIES I

ESI

INCREMENTAL DIFFERENCES IN RESOURCE UTILIZATION AND COSTS OF TREATING PERSONS INFECTED WITH HIV IN A LOW SOCIOECONOMIC NEIGHBORHOOD

Johnston KM¹, Levy A¹, Lai C², Briggs A³, Kerr T², Montaner JS², Tyndall M¹

¹University of British Columbia, Vancouver, BC, Canada, ²British Columbia Centre for Excellence in HIV/AIDS Research, Vancouver, BC, Canada, ³University of Glasgow, Glasgow, UK

OBJECTIVES: To measure the mean incremental differences in health services utilization and costs for individuals infected with HIV compared with individuals not infected with HIV who reside in the Downtown Eastside (DTES) of Vancouver, Canada. **METHODS:** We utilized data from the Community Health And Safety Evaluation (CHASE) Project, a prospective cohort study undertaken to measure health care utilization. A representative sample of residents living in the DTES were recruited beginning February 2003 and followed until March 31, 2004. Self-reported information was collected at baseline and included sections on sociodemographics, education, employment, housing, and illicit drug use. This information was linked to administrative health records on HIV-status, hospitalizations, outpatient consultations, and dispensed medications. Health expenditures included costs of hospitalizations (estimated using length of stay and the mean per-diem), outpatient visits and medications and were analyzed using random effects linear regression models and reported in 2004 \$CDN. **RESULTS:** The analysis consisted of 2,905 individuals who were successfully linked with at least one of the linked databases. There were 459 (15.8%) HIV-positive and 2456 HIV-negative participants. All utilization and cost estimates were significantly higher for individuals infected with HIV, both crudely and after adjustment. Individuals infected with HIV had

an annual mean additional 42.1 outpatient consultations (95% CI: 36.4–57.9) and 2.4 inpatient days (95% CI: 1.2–3.6). This resulted in an estimated increase in health expenditures of \$3140 CAN (95% CI: 2052–4225). **CONCLUSION:** Using high quality administrative health data we found that, among individuals living in Vancouver's DTES (Canada's poorest postal code), infection with HIV resulted in increased mean utilization of health services and expenditures. This has implications for social and health conditions associated with poverty in communities with high HIV prevalence. The quantitative estimates can be useful when evaluating programs designed to prevent and treat HIV amongst persons living in impoverished areas.

ES3

(For ES3 see page A348)

EC4

(For ES2 see page A301)

COST-EFFECTIVENESS AND COST-UTILITY OF RITUXIMAB MAINTENANCE THERAPY FOR PATIENTS WITH RELAPSED/REFRACTORY FOLLICULAR LYMPHOMA IN FRENCH SETTING
 Pacull A¹, Coudray-Omnes C¹, Brice P², Deconinck E³, Le Pen C⁴, Miadi-Fargier H⁵

¹Roche, Neuilly-sur-Seine, France, ²Saint-Louis Hospital, Paris, France,

³INSERM U-645 Université de Franche-Comté CHU Jean Minjoz IFR 133, Besançon, France, ⁴Dauphine University, Paris, France,

⁵AREMIS—aegisnet, Neuilly sur Seine, France

OBJECTIVES: Rituximab maintenance therapy (RM) has been shown to significantly extend overall survival (OS) and progression free survival (PFS) in relapsed/refractory follicular lymphoma (FL) in the pivotal trial EORTC20981. The purpose of this study was to assess, from the French Sickness Funds perspective, cost-effectiveness and cost-utility of RM after induction therapy versus current standard practice (observation). **METHODS:** A 3 health state lifetime transition model (30 years) was developed comparing RM and observation (Obs). PFS and OS were derived from the trial EORTC20981 with a median follow-up of 28 months and extrapolated from 2-year Kaplan-Meier curves using a Weibull distribution and were conservatively assumed to last only 5 years. Utility data were derived from a multicentric observational study using the EQ-5D questionnaire. Direct medical costs derived from French official sources. Costs were discounted at 3% and sensitivity analyses were performed. **RESULTS:** RM is effective in the management of relapsed/resistant FL. The results showed that life expectancy and QALY were increased respectively by 22% and 30% in patients treated with RM. Incremental cost-effectiveness ratio (ICER) was €7,612 per life year gained. The cost per QALY gained was €8,729. In one-way sensitivity analysis most of ratios fell within the range of €7,000 to €12,000 (the ICERs ranged from €5,700 to €43,300 per LYG and from 6,800€ to €49,700 per QALY). The frequency and cost of treatments upon relapse were identified as drivers for the model. Palliative care, transportation and indirect costs such as productivity loss were not included in the analysis. It was a conservative approach because it was expected that patients under RM would have less relapse and better life expectancy than those in observation. **CONCLUSION:** RM is a cost-effective strategy in the management of relapsed/refractory FL in France with an ICER largely below the threshold commonly cited in such analysis.

ES4/PSU2

(For ES4 see page A474)

WITHDRAWN

WITHDRAWN